

# PATENT SPECIFICATION

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DRAWINGS ATTACHED.

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## COMPLETE SPECIFICATION.

### Improvements in or relating to Practice Balls.

We, ABBEY SPORTS COMPANY LIMITED, a British Company, of 38—40 Upper Clapton Road, London, E.5, do hereby declare the invention, for which we pray that a patent  
5 may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention concerns practice balls for  
10 games such as golf, tennis and cricket.

A well known type of golf practice ball comprises a thin-walled sphere of plastics material, the sphere being provided with a plurality of holes distributed at spaced  
15 intervals over its surface so as to provide considerable wind resistance when the sphere is in motion.

The present invention has for an object to provide a new or improved ball suitable  
20 for practicing games such as, for example, golf, tennis and cricket.

According to the invention there is provided a ball in the form of a hollow sphere of plastics material, such ball comprising an  
25 equatorial band and a spherical segment on each side of such band, the spherical segments being defined by ribs bounded by parallel planes perpendicular to the equatorial plane and spaced along a diameter  
30 thereof, the sphere having an end cap at each end of the said diameter of the equatorial plane and extending beyond the equatorial band on both sides thereof, and the ribs of the spherical segment on one side of  
35 the equatorial band being opposed to the interspaces between the ribs of the spherical segment on the other side of the equatorial band and between these ribs and the said end caps.

As will hereinafter be apparent such a construction of a ball enables individual

[Price 4s. 6d.]

balls to be produced by a single injection moulding process, in contrast to known golf practice balls which are made in two separate halves which are then joined together.  
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In order that the invention may be more readily understood, one embodiment thereof will now be described by way of example and with reference to the accompanying  
50 drawings in which:—

Figure 1 is a perspective view of a golf practice ball constructed in accordance with the present invention.

Figure 2 is a side view of the ball of Figure 1, and

Figure 3 is an end view of the ball of Figure 1.  
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The golf practice ball shown in the accompanying drawings comprises a hollow sphere generally indicated at 1 of a resilient or relatively soft thermoplastic material, this sphere comprising a spherical segment on each side of an equatorial band 3, the spherical segments being defined by ribs bounded by parallel planes perpendicular to the equatorial plane and spaced along a diameter thereof.  
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The sphere has an end cap 7 at each end of the said diameter of the equatorial plane, each end cap extending, at 8 and 9 beyond the equatorial band 3 on both sides thereof.  
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The three ribs 2 of the spherical segments on one side of the equatorial band 3 are opposed to the interspaces 6 between the two ribs 5 of the spherical segment on the opposite side of the equatorial band and between those ribs and the end caps 8 and 9, and the ribs 5 are opposed to the interspaces 4 between the ribs 2 and between those ribs and the end caps 8 and 9.  
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The preferred method of constructing the above described golf practice ball is by an  
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injection moulding process utilising a mould having two mould halves, each mould half being formed with a mould cavity approximately defining a hemisphere. One of these  
 5 mould cavities is provided with three, parallel, circular plates, one plate lying along the central plane of the hemisphere, that is, the radial plane perpendicular to the circular base thereof, and the other two  
 10 plates being spaced at equal distances on either side of the central plate. The other mould cavity is provided with four parallel, circular plates so located that when the mould halves are placed in register each of the first mentioned three plates is located  
 15 between, and in contact with, a pair of the four plates on the other mould half, with the peripheries of the plates of each mould half lying spaced a short  
 20 way within the hemisphere defined by the other mould half. Thus, when the mould halves are closed, the interengaging plates fill up the core of the mould whilst defining a cavity corresponding to the desired form  
 25 of the practice ball to be moulded. A suitable liquid thermoplastics material may then be introduced under pressure into such cavity as is usual in injection moulding processes.

30 When the moulding operation has been completed and the mould opened, the moulded ball may easily be removed from the mould by reason of the resilience of the thermoplastics material from which the ball  
 35 is manufactured.

It should be realised that the number of plates in each mould may be varied. For example a larger number of plates would be suitable in the construction of practice  
 40 balls larger than golf balls. A greater number of plates in the mould would result in a corresponding increase in the number of ribs and interspaces in the ball produced by the mould.

#### WHAT WE CLAIM IS:—

1. A ball in the form of a hollow sphere of plastics material, such ball comprising an equatorial band and a spherical segment on each side of such band, the spherical segments being defined by ribs bounded by  
 50 parallel planes perpendicular to the equatorial plane and spaced along a diameter thereof, the sphere having an end cap at each end of the said diameter of the equatorial plane and extending beyond the equatorial band on both sides thereof, and the  
 55 ribs of the spherical segment on one side of the equatorial band being opposed to the interspaces between the ribs of the spherical segment on the other side of the equatorial band and between those ribs and the said  
 60 end caps.

2. A ball according to Claim 1, wherein there are three ribs extending on one side of said equatorial band and two ribs extending on the other side of the said equatorial band.  
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3. A ball according to Claims 1 or 2, and made as a one-piece injection moulding.

4. A ball substantially as hereinbefore described with reference to and as shown in the accompanying drawings.  
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5. A method of making a ball according to claim 1, substantially as hereinbefore described.  
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6. A mould for making a ball according to Claim 1, substantially as hereinbefore described.

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COMPLETE SPECIFICATION

1 SHEET

This drawing is a reproduction of  
the Original on a reduced scale

